



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,138	07/31/2003	Nick A. Youker	279.659USI	1822
21186 7590 04/05/2007 SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER DINH, TUAN T	
			ART UNIT	PAPER NUMBER
			2841	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/632,138

Applicant(s)

YOUKER ET AL.

Examiner

Tuan T. Dinh

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/12/07 has been entered.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-6, 8-12, 15-18, and 23-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim (U.S. Patent 6,778,040).

As to claims 1-5, 15-16, Kim discloses an apparatus as shown in figures 4-15 comprising:

one or more Input/output (V0) conductors (L1-L2), wherein the I/O conductors pass through a hermetic seal (44 and 60) such that a first end of the I/O conductors

resides on a non-hermetic side of the hermetic seal and a second end of the I/O conductors resides on a hermetic side of the hermetic seal within a hermetically sealed interior of the apparatus;

a printed circuit interconnect substrate (40, figure 4) residing on the hermetic side of the hermetic seal (44, 60), the substrate is mounted on a hermetic side of the seal (44, 60) and made by ceramic or FR4 material (column 2, line 2, column 11, line 17) (claims 2-5); and

one or more ceramic chip capacitors (C1-C2), which are discrete capacitor or surface mount package (claims 15-16) mounted on the printed circuit interconnect substrate to face inward into the interior (the capacitors are covered by a seal part 60 and ground part 44), wherein a first end of each capacitor is electrically connected via printed circuit (trace or wiring or pattern) interconnect to the second end of the I/O conductor and a second end of each capacitor is electrically connected via the printed circuit interconnect to the metal case (21), see column 2, lines 21-32.

As to claim 6, Kim discloses the printed circuit interconnect substrate in figures 13A-13D includes a flexible circuit tape (40).

As to claim 8, Kim discloses the printed circuit interconnect substrate is a multi-layer substrate (insulating layer and a ground layer).

As to claims 9-12, Kim discloses the printed circuit interconnect substrate includes an electrically conductive medium, which is a solder or conductive adhesive, see column 11, line 13, or a wire-bond, see figures 13A, 14A.

Art Unit: 2841

As to claims 17-18, Kim discloses the capacitors are included in a multi-chip package, and are adapted to filter electromagnetic interference (EMI).

As to claims 23-26, Kim discloses the I/O conductors that are pins, wires, or conductive traces formed on/in the circuit board, see figures 1-15.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim ('040) in view of Brendel et al. (U.S. Patent 6,529,103).

Regarding claims 19-22, Kim does not disclose the hermetic seal is a part of an implantable medical device and the seal material including a ceramic, epoxy, or glass.

Brendel et al teaches an improved internally ground feed through capacitor comprising a hermetic seal is a part of an implantable medical device and the seal material including a ceramic, epoxy, or glass, see column 1, lines 30-62.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Brendel et al. employed in the apparatus of Kim in order to reduce cost and prevent the ingress of body fluids of implanted devices, and also, the hermetic seal material made by ceramic, epoxy, or glass is suitable for withstanding high temperature and thermal stress.

4. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Andresakis et al. (U.S. Patent 6,657,849).

As to claims 13-14, Kim does not disclose the capacitors having a dielectric breakdown voltage of about 1200 volts, or within a range of about 200 to 1500 volts.

Andresakis et al. shows a capacitor having a dielectric breakdown voltage of about 1200 volts, or within a range of about 200 to 1500 volts, see examples 1-5.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Andresakis et al. employed in the apparatus of Kim in order to provide a high quality ceramic EMI/RFI filter capacitor applied in vary of an electronic device.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Chee (U.S. Patent 6,657,133).

As to claim 7, Kim does not disclose the flexible circuit tape includes polyimide tape.

Chee teaches a circuit board made by polyimide tape, column 2, lines 30-61.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a teaching of Chee employed in the apparatus of Kim in order to provide a flexible and high thermal stress for the circuit board.

Response to Arguments

6. Applicant's arguments filed 04/21/06 have been fully considered but they are not persuasive.

Applicant argues:

Kim does not disclose "the ceramic chip capacitor(s) mounted on the printed circuit interconnect substrate to face inward into the seal interior"

Examiner disagrees because the capacitors (C1, C2) are covered by the seal 60 and grounding part (44). Thus, the capacitor(s) being formed inside the seal and ground parts.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hassler et al., Hittman et al., and Byers et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reichard Dean can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Tuan Dinh', with a long, sweeping horizontal stroke extending to the right.

Tuan Dinh
March 26, 2007.